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(54) Title: SPIDER SILK COVERED STENT

(57) Abstract: A stent-graft composite intraluminal prosthesis comprises an elongate radially adjustable tubular stent, defining opposed exterior and luminal stent surfaces and a polymeric stent sheath covering at least the exterior surface thereof. The stent can include a plurality of open spaces extending between the opposed exterior and interior surfaces so as to permit said radial adjustability. The stent has a polymeric material on its exterior surface, its interior surface, in interstitial relationship with the stent or any combination of the above. The polymer is preferably selected from the group of polymeric materials consisting of biological or genetically engineered spider silks, such as those derived from *Nephila clavipes*. The silk includes bioengineered spider silks as well as silk-like polymers manufactured using human proteins and blends of such silks with commonly used polymeric graft materials. If separate sheaths are placed on both the exterior and interior surfaces of the stent, the sheaths are secured to one another through said open spaces, such as by lamination, suturing or adhesion.